

In the Specification:

Please replace the paragraph at page 4, line 15 to page 5, line 22, with a replacement paragraph amended as follows:

The use of at least one lattice sheet metal ply bonded to at least one uninterrupted sheet metal ply has the advantage that the lattice structure stiffens the structural component exactly where needed. The stiffening is capable of taking up a portion of the load. The load distribution can be controlled by the configuration of the lattice structure, thereby taking up some of the load that is conventionally taken up by the frame structure of an aircraft. A localized skin reduction by a pocketing between the stiffening members of the fuselage frame is no longer necessary because the respective weight reduction is inherent in the use of a lattice structure as part of the laminated structure. The lattice structure provides a skin thickness reduction throughout the entire area of the particular skin section between the lands and struts of the lattice structure. Moreover, the construction of the lattice structure is easily adapted to the load requirements throughout the aircraft body skin. Another advantage of the invention is seen in that, compared to conventional stiffening features, there are no restrictions regarding the geometry and configuration of the lattice structure. Thus, the stiffening or rather strengthening can be achieved in any desired direction lengthwise or circumferentially of the aircraft body frame and at any

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desired location of the entire fuselage, thereby tailoring the aircraft skin characteristics to the localized load requirements of the aircraft fuselage. The lattice work permits a differential bonding between the lattice and the uninterrupted ply or plies of the laminated structural component, whereby a crack stop effect is achieved. For example, a crack in the uninterrupted ply will be stopped if it spreads perpendicularly to the lattice ply when the crack enters the area where the lattice ply is bonded to the uninterrupted ply. The lattice ply, so to speak, impedes the progression or spreading of cracks, thereby stopping such cracks from growing.

Please replace the paragraph at page 8, lines 14 to 21, with a replacement paragraph amended as follows:

The thin uninterrupted metal plies 2 and 3 may be produced as thin sheet metals of the following metal materials such as aluminum alloys, titanium alloys, steel alloys, copper alloys, zinc alloys, and magnesium alloys. The uninterrupted metal plies 2 and 3 each have a thickness of less than 2 mm, preferably a thickness within the range of 0.5 mm to 1.5 mm. This applies also to the lattice plies 5 and 6. However, if only one uninterrupted sheet metal ply 2' is used the thickness of that single uninterrupted sheet may be up to 5.0 mm.

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Please replace the paragraph at page 10, line 10 to page 11 line 13, with a replacement paragraph amended as follows:

Figs. 3, 3A and 3B show a laminated lightweight fuselage component 15 for an aircraft body according to the invention. A body skin 16 is formed preferably by two lightweight sheet metal plies including the first ply 2 and the second ply 3 bonded to each other at 4D. The lattice structure 4 comprising two sheet metal lattice plies 5 and 6, for example, is formed by adhesively bonding the two lattice plies 5 and 6 to each other. For this purpose, the strip shaped lands of the lattice ply 6 must at least partly coincide or register with the lands of the lattice ply 5. Stiffening members 19 in the form of ribs are adhesively bonded to vertical lands V. Further stiffening members in the form of stringers 18 are secured to horizontal lands H. However, the stiffening ~~elements~~ members 18 and 19 may also be secured by riveting or welding rather than by adhesive bonding. The lattice structure 4 is at least partly present under the stiffening elements 18 and 19. However, additional lands referred to as struts and functioning as ~~[[or]]~~ stiffening members may be provided in the open skin fields 17 such as ~~are shown at the struts~~ 11 extending in parallel to the horizontal lands H and ~~as shown at the struts~~ 12 extending in parallel to the vertical lands V. The sheet metal lattice ply 5 comprises for this purpose a lattice structure that is positioned under on the stiffening ~~elements~~ members 18 and 19 ~~in the form of forming~~ stringers and ribs. Directly

above the ply 5 with its framework struts 11 and 12 there is arranged the sheet metal lattice ply 6. The lattice ply 6 is directly connected to, or rather the lands of the lattice ply 6 are directly positioned under, the stringers 18 and ribs 19. The thus formed lattice 4 takes up a portion of the load that conventionally was taken up by the stringers 18 and ribs 19 of the conventional aircraft frame structure. Thus, the stiffening elements 18 and 19 can now be made smaller, whereby an additional weight reduction has been achieved.

Please replace the paragraph at page 12, line 25 to page 13 line 14, with a replacement paragraph amended as follows:

Fig. 4 shows a perspective view of the ply structure of the lightweight structural component or panel 1 shown in Fig. 3. The lattice structure 4 comprises the sheet metal lattice plies 5 and 6 with their strip shaped lands and struts 10, 11, 12 at least ~~[[on]]~~ in one of the lattice plies 5 or 6. The uninterrupted plies 2 and 3 are bonded to each other and to the lattice structure 4. By selecting the ply thickness for the lattice plies 5, 6 within the range of 0.5 mm to 2.0 mm, by configuring the lattice 4 particularly with regard to the position of the strip shaped lands and struts 10, 11, 12, and by selecting the appropriate metal or metal alloys for the plies 2, 3, 5, 6 it is now possible according to the invention to tailor the lightweight structural component to have optimal characteristics relative to the requirements that must be

met by an aircraft fuselage structure 15. The lattice plies 5 and 6 may be both constructed with struts 10, 11, 12 or only one lattice ply 5 or 6 may have such struts. In Fig. 4 the inner lattice ply 5 is provided with struts 10 and 11, for example.

[RESPONSE CONTINUES ON NEXT PAGE]

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